

CLAIMS

We claim:

1. A method comprising:
receiving data pertaining to a user request for content;
determining that the requested content cannot be displayed in a browser window using a single page; and
generating code which, when executed, causes a display of the requested content to be divided into a plurality of frames displaying corresponding portions of the requested content in the browser window, the plurality of frames appearing to a user as a single page containing the requested content.
2. The method of claim 1 wherein the code is presented in the form of a markup language document identifying the plurality of frames associated with child markup language documents.
3. The method of claim 1 wherein each of the plurality of frames has invisible borders and is positioned immediately after a preceding frame.
4. The method of claim 1 wherein each of the plurality of frames is associated in the code with a set of parameters that cause said each of the plurality of frames to request the corresponding portion of the requested content from a content source during the execution of the code.
5. The method of claim 4 wherein the plurality of frames request corresponding portions of the requested content in parallel.

6. The method of claim 1 wherein each of the plurality of frames in the code includes instructions that cause the plurality of frames to operate as a single page in response to user interaction with the displayed content.

7. The method of claim 1 wherein the data pertaining to the user request is a query execution plan.

8. The method of claim 1 wherein determining that the requested content cannot be displayed in the browser window includes: calculating the number of formatting elements needed for display of the requested content in the browser window using a single page; and

determining that the calculated number of formatting elements exceeds a predefined threshold.

9. The method of claim 1 further comprising: calculating the number of frames required to display the requested content.

10. The method of claim 9 wherein the number of frames depends on a layout of the display of the requested content.

11. The method of claim 10 wherein:
the layout includes a set of columns; and
each of the plurality of frames is designated to display data in a particular column within the set of columns.

12. The method of claim 1 wherein each of the plurality of frames is an inline frame.

13. The method of claim 1 further comprising:
sending the code to a client device for execution.

14. An apparatus comprising:
a user request processor to receive data pertaining to a user request for content and to determine that the requested content cannot be displayed in a browser window using a single page; and
a code generator to generate code which, when executed, causes a display of the requested content to be divided into a plurality of frames displaying corresponding portions of the requested content in the browser window, the plurality of frames appearing to a user as a single page containing the requested content.

15. The apparatus of claim 14 wherein the code is presented in the form of a markup language document identifying the plurality of frames associated with child markup language documents.

16. The apparatus of claim 14 wherein each of the plurality of frames has invisible borders and is positioned immediately after a preceding frame.

17. The apparatus of claim 14 wherein each of the plurality of frames is associated in the code with a set of parameters that cause said each of the plurality of frames to request the corresponding portion of the requested content from a content source during the execution of the code.

18. The apparatus of claim 17 wherein the plurality of frames request corresponding portions of the requested content in parallel.

19. The apparatus of claim 14 wherein each of the plurality of frames in the code includes instructions that cause the plurality of frames to operate as a single page in response to user interaction with the displayed content.

20. The apparatus of claim 14 wherein the data pertaining to the user request is a query execution plan.

21. The apparatus of claim 14 wherein the user request processor is to determine that the requested content cannot be displayed in the browser window by calculating the number of formatting elements needed for display of the requested content in the browser window using a single page, and determining that the calculated number of formatting elements exceeds a predefined threshold.

22. The apparatus of claim 14 wherein the code generator is further to calculate the number of frames required to display the requested content.

23. The apparatus of claim 22 wherein the number of frames depends on a layout of the display of the requested content.

24. The apparatus of claim 23 wherein:
the layout includes a set of columns; and

each of the plurality of frames is designated to display data in a particular column within the set of columns.

25. The apparatus of claim 14 wherein each of the plurality of frames is an inline frame.

26. An apparatus comprising:

means for receiving data pertaining to a user request for content; means for determining that the requested content cannot be displayed in a browser window using a single page; and

means for generating code which, when executed, causes a display of the requested content to be divided into a plurality of frames displaying corresponding portions of the requested content in the browser window, the plurality of frames appearing to a user as a single page containing the requested content.

27. A system comprising:

a client computer to receive a user request for content; and

a server, coupled to the client computer over a network, to generate a markup language document according to the user request for content and to send the markup language document to the client computer for display, the markup language document being displayed as a plurality of frames with invisible borders, such that the requested content appears to be displayed as a single page.

28. A computer readable medium comprising executable instructions which when executed on a processing system cause said processing system to perform a method comprising:

receiving data pertaining to a user request for content from a client device;
determining that the requested content cannot be displayed in a browser
window using a single page; and
generating a script which, when executed, causes a display of the
requested content to be divided into a plurality of frames displaying
corresponding portions of the requested content in the browser window, the
plurality of frames appearing to a user as a single page containing the requested
content.

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